



Application Guide

Auto Dealership Lighting

Unmatched Lighting Performance and Quality With No Compromise







Showcase Your Dealership and Attract Potential Customers

Selling a vehicle is about more than just having the models, safety features and prices that your customers are looking for. It's a visual and emotional experience. The reason you wash, vacuum and wax a car before putting it on the lot is the same reason why the luminaires lighting your business are so important.

Cree offers a complete line of LED luminaires that will enhance the lighting throughout your dealership — from the front-line row of cars to the showroom and service bays.

- Proven quality & performance
- Ultra-efficient lighting
- Lifetime energy savings
- Reduced maintenance costs
- Easy installation & retrofitting
- Long-term financial benefits

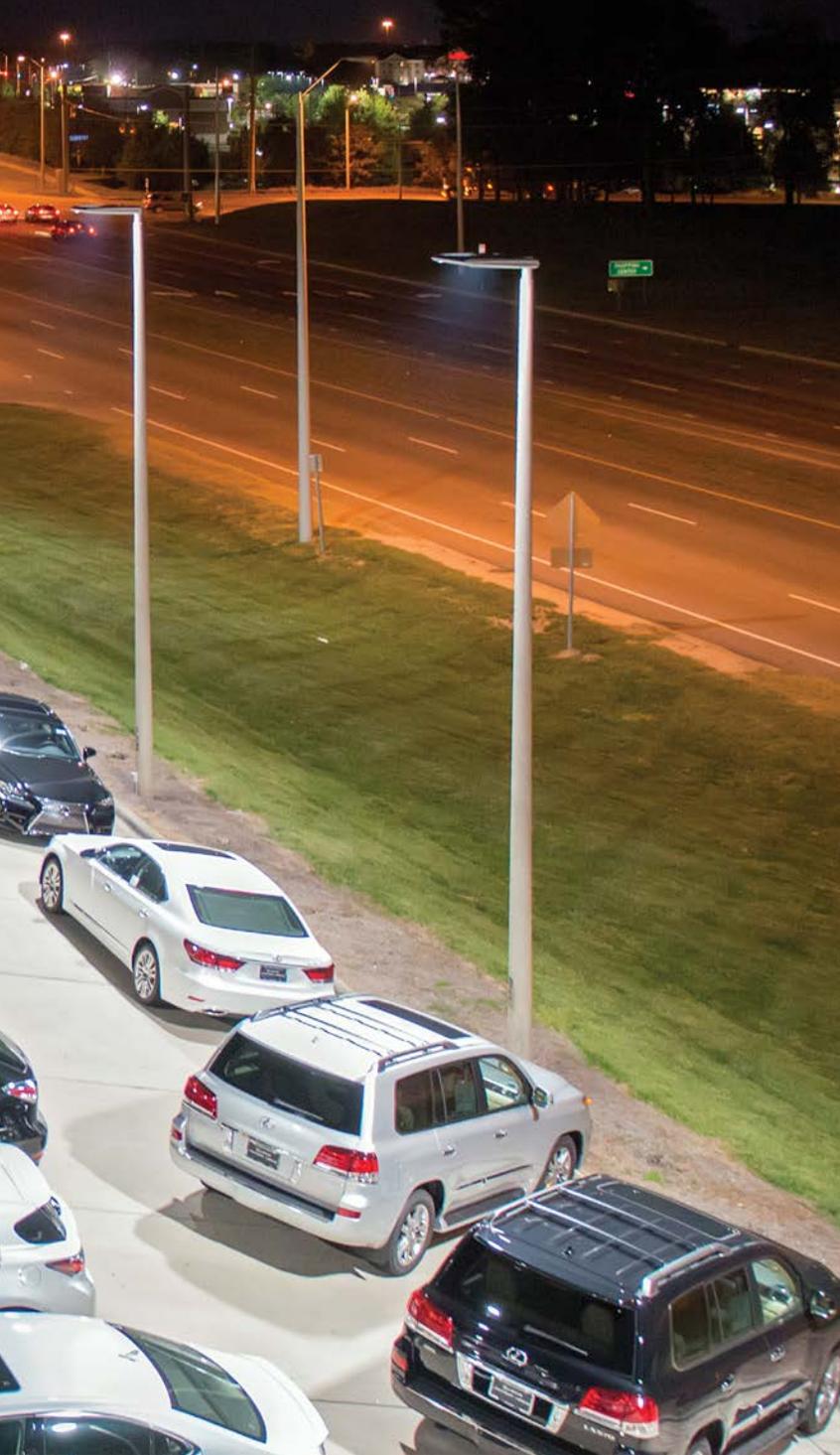
CREE 



Make the Right First Impression with Your Customers

Exterior lighting is a critical element in shaping the customer perception of your dealership and the vehicle inventory you'd like to sell after dark.

Traditional metal halide lighting can lose 40 percent or more of its initial light output within the first year of operation and can suffer significant color shifts over time. Contrast this with Cree® LED exterior fixtures that lose less than 10 percent of their light over more than a decade on most products and have significantly better color stability. The result is Cree products simply showcase your business and vehicles in a better light.



Cree Edge™ High Output with TrueWhite® Technology

- 90 CRI at 5000K
- Delivers true-to-life color rendering
- One single Cree Edge™ High Output luminaire can replace up to four MH fixtures while delivering more than 70% savings in energy consumption



Cree Edge™ High Output Area

- Minimum 70 CRI at 4000K or 5700K
- Precisely-controlled optical choices
- Exceptional thermal management
- Colorfast DeltaGuard® Finish



Cree Edge™ Area

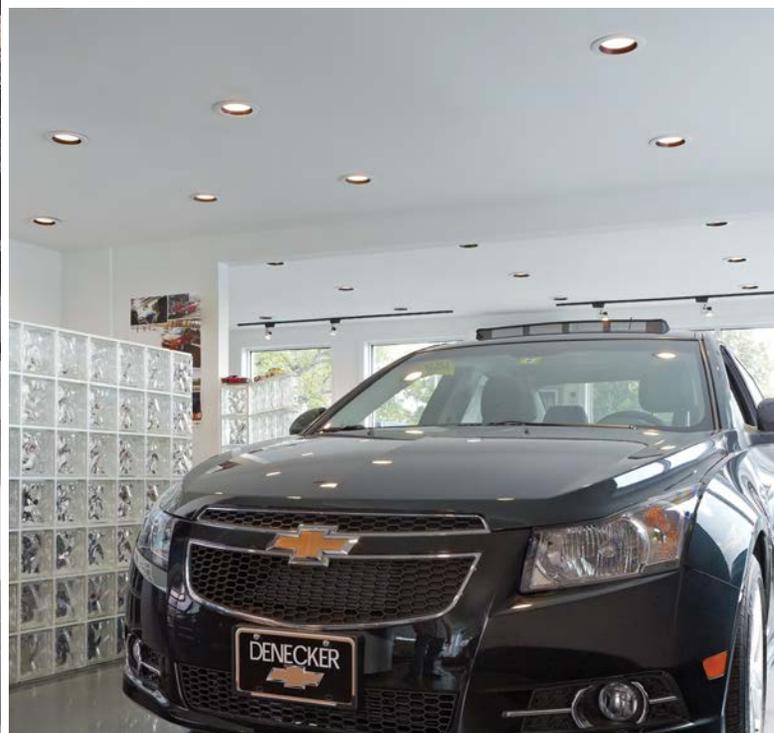
- Minimum 70 CRI at 4000K or 5700K
- High/low control options
- Optional backlight cutoff shield
- International Dark Sky Association approved



Showroom Lighting that Improves Your Customers' Experience

A properly illuminated showroom enhances the features and benefits of your vehicle inventory. The showroom, more than any other area, is where your visitors form a favorable impression of your dealership's quality and professionalism. Beautiful lighting and excellent color rendering give your customers the confidence to imagine themselves behind the wheel of their new vehicle.

Cree LED downlights and lamps put the focus on your latest models and help your customers focus on their buying decision.



Essentia® Downlights

- Impressive LED lumen package
- Serviceable and upgradable light engine and components
- Multiple color temperatures and distribution patterns
- Designed to last up to 50,000 hours



KR Downlights

- Cree TrueWhite® Technology
- Available with 4" and 6" apertures
- Efficacy up to 67 lumens per watt
- Deliver up to 2,650 lumens
- Designed to last up to 50,000 hours



LM16 Lamps

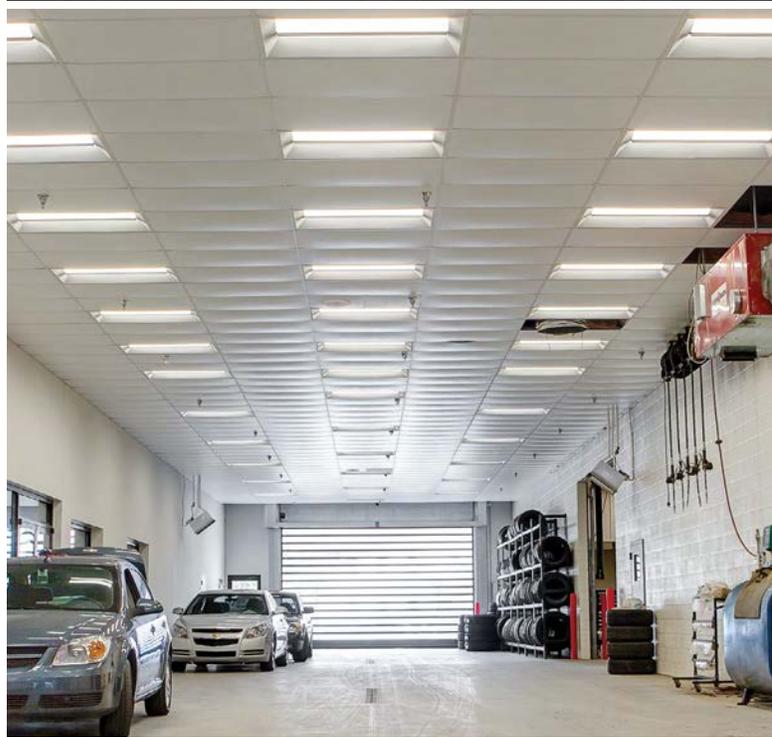
- 7-watt (35W MR16 equivalent)
- 9-watt (50W MR16 equivalent)
- 17°, 25° or 40° beam angles
- ENERGY STAR® qualified to last at least 25,000 hours
- 9-watt dimmable with select dimmers and transformers



Service Your Customers Not Your Lights

Your service department requires good lighting to help maintain its productivity and help increase your revenues. That means the technicians working in your shops need high-performance lighting to reliably provide superior work that keeps your customers returning to the dealership for oil changes, parts replacements and other services.

Cree LED troffers and low-bay fixtures offer energy-efficient and near maintenance-free lighting for critical activity spaces that require high-efficiency, high-quality general purpose lighting.



CR Troffers

- Available with Cree TrueWhite® Technology
- 2,000 to 5,000 lumen options
- Standard 10-year limited warranty
- Efficacy up to 130 LPW
- Designed to last up to 100,000 hours



304 Series™ Canopy

- UL wet listed
- Modular, low-profile design
- CCT: 4000K or 5700K
- Utilizes BetaLED® Technology
- Adjustable mounting bracket



CS Surface/Suspended Ambient

- Cree TrueWhite® Technology
- Deliver up to 8,000 lumens
- Efficacy up to 110 lumens per watt
- Designed to last up to 50,000 hours or 75,000 hours with HE option



Professional and Inviting Offices

After a customer finds the right vehicle, you want to bring them to an office with a professional and comfortable setting that provides the right environment to help close the deal. Cree interior lights fit into any architectural plan and offer a variety of color temperatures and lumen packages.

Cree LED downlights and troffers provide higher efficacy and longer life, with better light quality than you can expect from traditional fluorescent and incandescent lighting.



AR Troffers

- Cree TrueWhite® Technology
- 3,200 or 4,000 lumen options
- Efficacy up to 100 LPW
- Standard 10-year limited warranty
- Designed to last up to 75,000 hours



LR Downlights

- Cree TrueWhite® Technology
- Deliver up to 1,800 lumens
- Efficacy up to 90 LPW
- Designed to last up to 50,000 hours
- Dimmable to 5%



UR LED Upgrade Kit

- Full definition 80+CRI
- 3,600 to 4,500 lumen options
- Step level dimming to 50%
- Efficacy up to 100 LPW
- Designed to last up to 50,000 hours



Save More While Securing Your Exterior

Site and area lighting often create the greatest consumption of energy for an automotive dealership. With the Cree family of LED luminaires, you can drastically reduce the wattage required to illuminate your location.

Inside, outside and on the showroom floor, Cree lighting pays for itself—all while helping your site and vehicles look crisp, colorful and appealing for your guests. Our LED luminaires help you create an inviting appearance that will provide your customers with a sense of safety and security through properly directed light.



CPY Canopy

- Slim, low-profile design
- Flat or drop lenses available
- UL listed
- Colorfast DeltaGuard® Finish
- Initial delivered lumens: 8,000 or 13,000



XSP Area

- Remote monitoring compatibility
- Colorfast DeltaGuard® Finish
- NanoOptic® Precision Delivery Grid™ Optic
- DLC Qualified available



Cree Edge™ Security

- Modular, low-profile design
- UL wet listed
- International Dark Sky Association approved

IT'S A BRAND NEW NIGHT IN HIGH-OUTPUT LIGHTING

Gone are the Reasons to Compromise Superior Color Quality

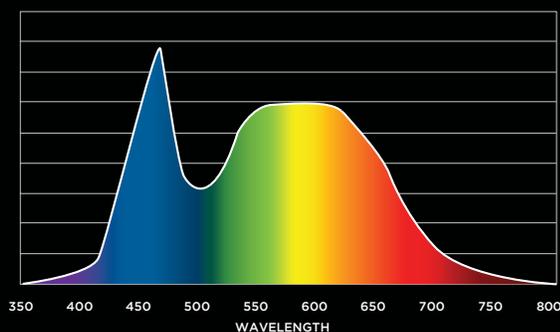
The cars on display in your dealership need to be properly illuminated to showcase the exciting paint and interior options that you are promoting. Don't let insufficient color rendering from poor lighting diminish your customer's car shopping experience. Powered by Cree TrueWhite® Technology, only Cree LED fixtures can deliver our exclusive combination of industry-leading efficacy, 90+ CRI, and consistent warm or cool color temperatures. The Cree Edge™ High Output featuring TrueWhite® delivers true-to-life color rendering with 5000K 90 CRI and maintains more than 90 percent of the light output for longer than a decade. Contrast this with metal halide lighting that can lose 40 percent or more of its initial light output within the first year and can suffer significant color shifts.

Good Enough is No Longer Good Enough

Designed specifically for the front lines of automotive dealerships, the Cree Edge™ High Output Automotive FrontlineOptic™ precisely puts light on the front row of your vehicle inventory—the most high profile area on your property. Furthermore, the precision NanoOptic® Technology will deliver light exactly where it is needed—reducing light pollution. The combined impact of the 90 CRI and NanoOptic® Technology will dramatically enhance the curb appeal of any dealership—making the Cree Edge™ High Output FrontlineOptic™ a perfect solution for your dealership.

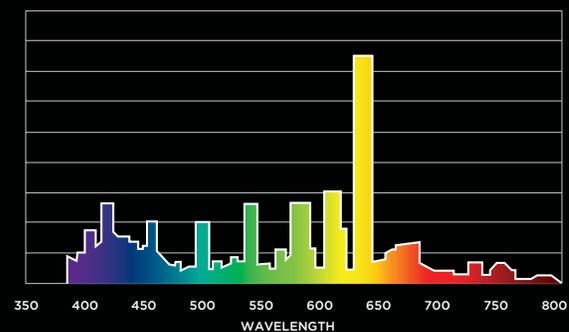
Like Metal Halide, Only Better

The Spectral Power Distribution (SPD) curves shown here provide a great way to compare the color characteristics between the Cree Edge™ High Output featuring TrueWhite® luminaire and traditional metal halide fixtures. At each point across the visible color spectrum, the height of the SPD curve correlates with how accurately that color is rendered by the light source.



90 CRI

The fuller, more continuous curve renders a much larger color set than metal halide while using only a fraction of the energy.



Traditional Metal Halide



Colorfast DeltaGuard® Finish

Colorfast DeltaGuard® Finish is the finest industrial-grade finish available, exclusive to Cree outdoor fixtures and poles, and carries an industry-leading 10-year limited warranty. Each outdoor fixture follows an immersion process that includes six cleaning and eight pre-treatment stages and an epoxy e-coat before the topcoat is applied. The baked-on ultra-durable powder topcoat is the last step to an outstanding finish that provides ultraviolet light resistance, corrosion resistance and fade protection.

Cree Automotive FrontlineOptic™ Technology

Utilizing exclusive NanoOptic® Technology—a level of optical control that only an LED light source can provide—the Cree Edge™ High Output luminaire precisely delivers light on target, and is capable of reducing energy consumption by more than 50 percent over traditional technologies. Its thermal management system uses a flow-through design to maximize performance and longevity. The result is a payback-friendly solution that delivers unmatched high output illumination performance with significant energy and maintenance savings not possible from previous technologies.

Cree Edge™ High-Output LED versus Traditional Metal Halide



Cree Edge™ High Output with Automotive FrontlineOptic™ Technology

(2) 426W units (852 total watts)*

Excellent color quality—full color spectrum source with high CRI



Traditional Metal Halide

(2) 1000W units (2160 total watts with ballast loss)

Typical metal halide color quality

*Single 851W unit also available.



High Output Illumination with No Compromise

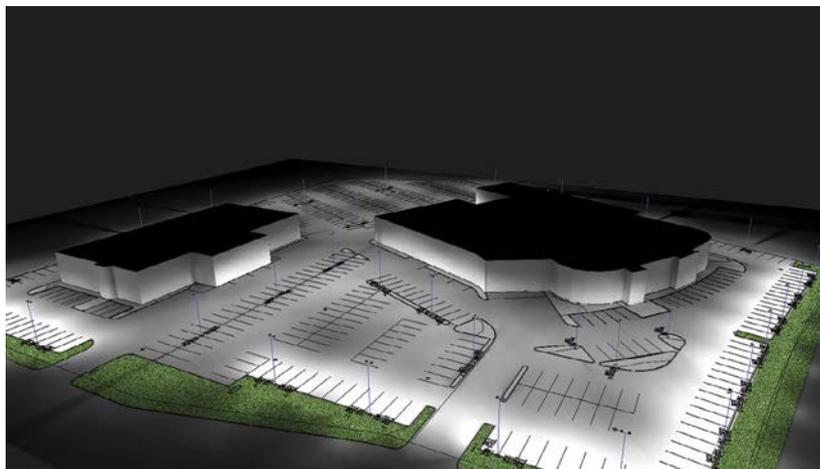
The Cree Edge™ High Output luminaire redefines what high-output illumination performance can be, all without sacrifice or compromise.

Beginning with more than 20 precisely-controlled optical choices, including a FrontlineOptic™ technology developed specifically for the needs of automotive dealerships, Cree Edge™ High Output has the optical focus required to place light where it is needed. This optical precision puts light on target with little or no waste, resulting in significant energy savings.

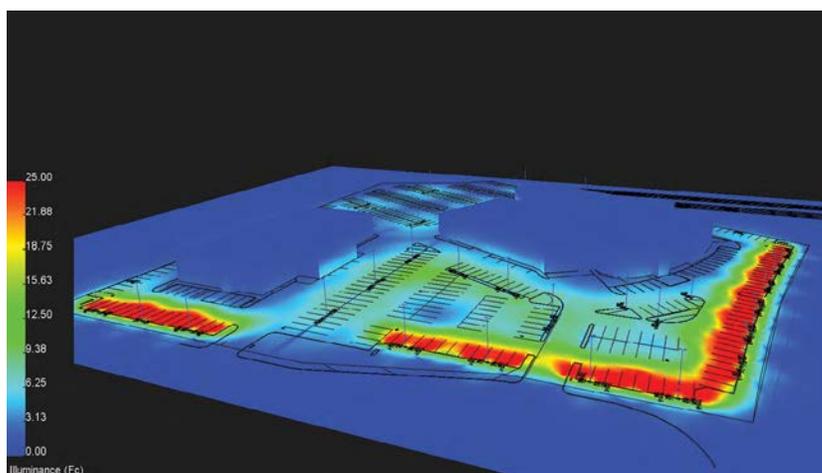
The benefits don't end there. Exceptional thermal management helps limit the amount of light lost over time. This eliminates costly and inconvenient re-lamping cycles for more than a decade, significantly reducing maintenance costs and disruptions to operations.

No sacrifice or compromise. Just high quality, high-output illumination performance that saves energy, significantly reduces your maintenance costs and puts applications requiring a high-output solution in a whole new light.

Only from Cree.



This image demonstrates our optical precision, illustrating our ability to provide much higher light levels on front-line vehicle areas utilizing our FrontlineOptic™ technology. This brings attention to the front line of the dealership to attract nighttime customers. Once customers are in the general sales area of the lot, light levels are reduced. Overall, the lighting is tailored to meet the specific needs of the dealership and is ready to contribute to the ultimate buying experience.



This image is using infrared imaging to illustrate the same message: strategic lighting capable of significant energy and maintenance savings.

Realizing Energy and Maintenance Savings is as Easy as 1...2...3

- 1 Choose the right Cree Edge™ High Output luminaire for your application to significantly reduce energy and maintenance costs while improving your illumination performance.
- 2 Determine which mounting your application requires— either the Adjustable Arm Mount or the Direct/Surface Adjustable Mount.
- 3 Contact your local Cree LED Lighting representative and start enjoying the many benefits of LED lighting.

Direct/Surface Adjustable Arm Mount 120 or 240 LED



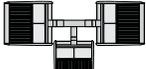
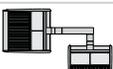
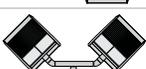
Direct Mount Pole Configurations

Configuration	Mount	Tenon/Bracket
	Single Mount	No tenon or bracket needed for direct/surface arm mount.
	180° Twin Mount	No tenon or bracket needed for direct/surface arm mount.

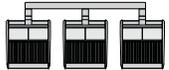
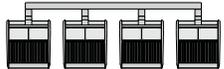
Adjustable Arm Mount 120 or 240 LED



Adjustable Mount Pole Configurations

Configuration	Mount	Tenon	Description
	Single Mount		Steel square tenon available in 3", 4", 5", and 6".
	Twin In-Line Mount		Steel square tenon available in 3", 4", 5", and 6".
	180° Twin Mount		Steel square tenon available in 3", 4", 5", and 6".
	90° Triple Mount		Steel square tenon available in 3", 4", 5", and 6".
	90° Twin Mount		Steel square tenon available in 3", 4", 5", and 6".
	120° Triple Mount		Steel square tenon available in 3", 4", 5", and 6".

120 LED Only

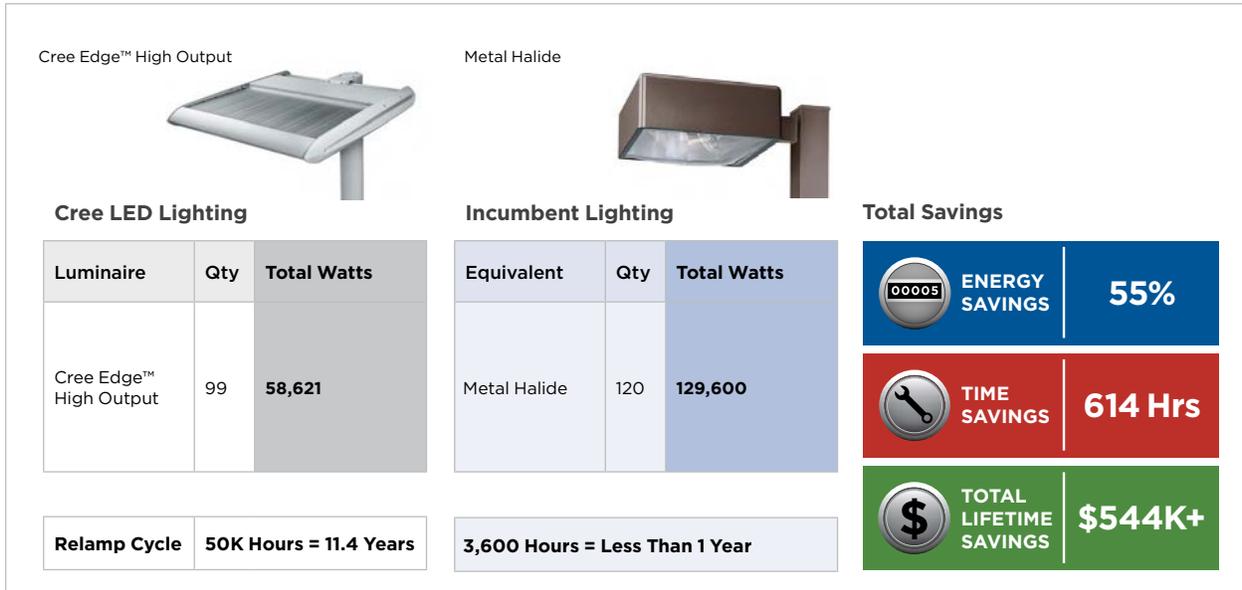
	Triple In-Line Mount		Steel square tenon available in 3", 4", 5", and 6".
	Quad In-Line Mount		Steel square tenon available in 4", 5", and 6".

Many factors go into selecting the right pole and tenon for your application. Luminaire size, shape, mounting method, Effective Projected Area (EPA) rating, and geographical location of the job site should all be considered.

Turn Your Savings Into More Sales

Installing energy-efficient Cree LED lighting offers lifetime financial benefits in the form of lower energy bills and maintenance costs. In an auto dealership like the one shown here, these savings can add up to a significant amount over time—\$604K over 11.4 years, to be exact.

Outdoor Savings Analysis**



Indoor Savings Analysis**



**Savings and payback are representative of what customers could expect operating in a typical new construction auto dealership environment using comparable products.

To see how these savings were achieved and to calculate your own, visit www.cree.com/payback.

†Wattage with ballast factor.

Are Utility Incentives For You?

Interior and exterior LED luminaires by Cree are eligible for retrofit and new construction incentives under utility programs throughout the United States. Utility LED lighting incentives are able to help lower the upfront costs associated with installing new, energy-efficient lighting. The example below shows an actual incentive an automotive dealership customer received through their local utility by switching to Cree Edge™ High Output luminaires.

Utility LED Program Incentive Offering: \$0.08/kWh Saved

Annual Luminaire Operating Hours: 4,368

Cree LED Lighting	Qty	Watts	Total Watts	Incumbent Lighting	Qty	Watts [†]	Total Watts	Incentive
Cree Edge™ High Output	70	557	38,990	1000w Metal Halide	126	1080	136,080	\$33,927

[†]Wattage with ballast factor.

Capture Your Incentive Through These Simple Steps

1. Check with your electric utility provider to determine if there are LED lighting programs available.
2. After determining your eligibility, submit the program's lighting application.
3. The utility program will review your project scope and will generally provide you a pre-approval noting your potential incentive.
4. Complete your project installation according to your pre-approved products.
5. The utility will verify the installation and finalize the pre-approved amount by processing the incentive check.

Helpful Incentive Information

What is a prescriptive incentive versus a custom incentive?

A prescriptive incentive is a predetermined dollar amount per luminaire. A custom incentive is determined based on the demand and/or energy saved by installing the new LED luminaire in terms of kW or kWh.

What products qualify?

Every utility program provides their own set of requirements and product criteria. In general, utilities usually require LED products to be listed under the qualification bodies of either Energy Star or DesignLights Consortium (DLC). In order to qualify under one of these organizations, the product must meet high efficiency, quality, and lifetime criteria standards.

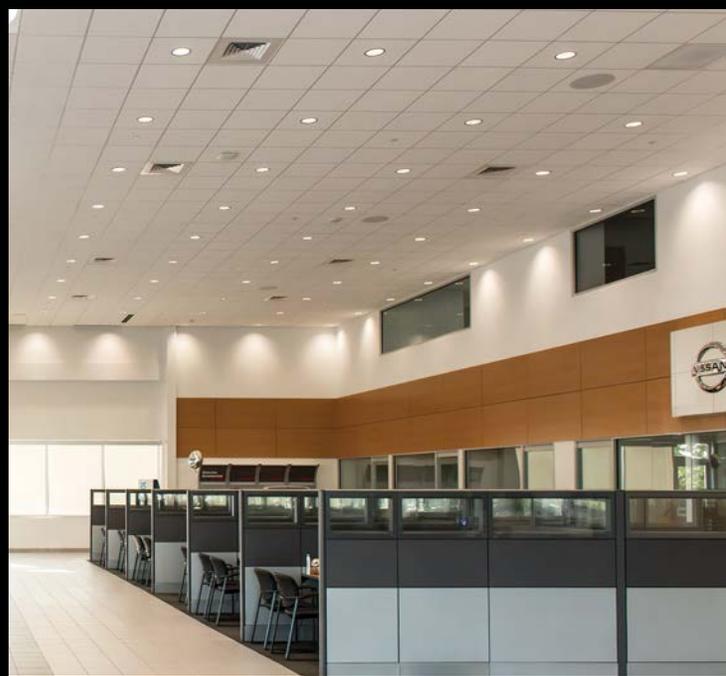
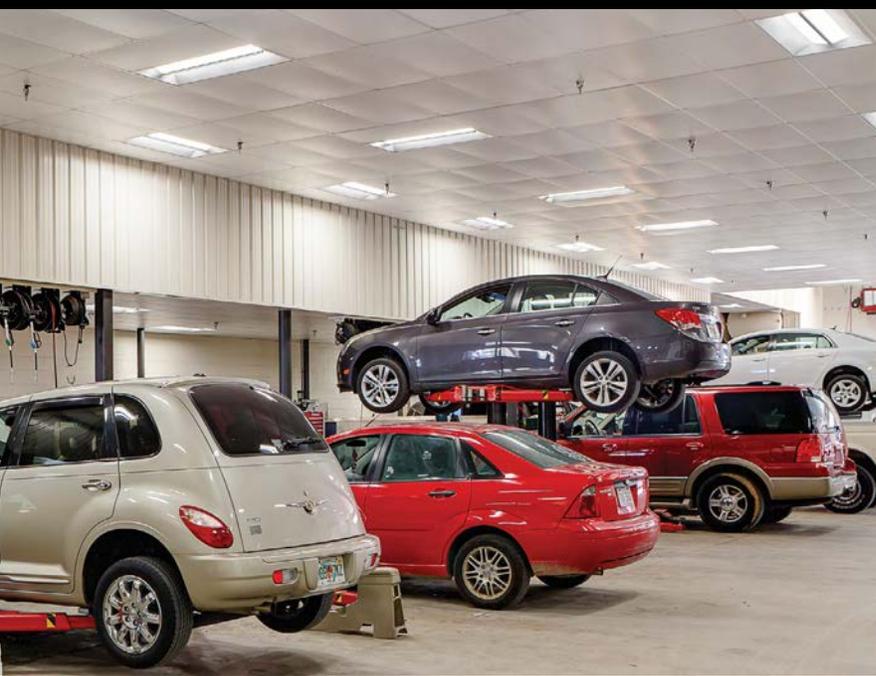
What could potentially disqualify a project?

The customer generally needs to be granted pre-approval for an incentive amount before starting a project. The project may become ineligible if products are installed before receiving a pre-approval from the utility program.

Cree 10-Year Limited Warranty

Light your dealership with confidence. Cree offers a 10-year limited warranty that covers the broadest product range in the industry. As a leading innovator of LED chips, components and lighting, Cree has over 20 years of experience in commercial LED development, bringing an unprecedented level of expertise to all facets of the LED lighting design and development process. Cree's 10-year limited warranty covers nearly all globally-available, commercial-grade indoor and outdoor fixtures. To learn more, please visit www.cree.com/lighting/products/warranty.

Disclaimer: Utility rebate programs are governed fully by the utilities and are subject to change without notice. Contact individual utilities for updates and/or changes to their programs.



Facilities featured in this brochure include:

Deneker Chevrolet - Vergennes, VT

Duvall Automotive - Clayton, GA

Johnson Lexus - Raleigh, NC

Michael Jordan Nissan - Durham, NC

Palmen - Racine, WI

Reed Lallier - Fayetteville, NC

Reliable Buick GMC - Roseville, CA

Rev Up Your Auto Sales

Learn more at: www.cree.com/lighting/auto | auto@cree.com | 800.236.6800

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